

FORM PTO-1449
(REV. 6-89)

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Attorney's Docket No.

5169 US

Serial No.

09/728,373

Applicant

Ting K. Yee and Peter Chang

Filing Date

November 28, 2000

Group Art Unit

2733

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
DSK	A	4,061,577	12/6/77	Bell	250-398	199-76	8/18/76
DSK	B	4,701,904	10/20/87	Darcie	370-398	3-72	
DSK	C	4,953,156	8/28/90	Olshansky et al.	370-398	3-76	9/8/88
DSK	D	5,351,148	9/27/94	Maeda et al.	359-398	424-76	5/26/93
DSK	E	5,387,927	2/7/95	Look et al.	348-725	6-114	9/17/93
DSK	F	5,430,568	06/04/95 07	Little et al.	359-398	424-81	
DSK	G	5,559,561	9/24/96	Wei	348	470	7/15/94
DSK	H	5,576,874	11/19/96	Czerwiec et al.	359-398	423-75	
DSK	I	5,596,436	1/21/97	Sargis et al.	359-398	432-76	7/14/95
DSK	J	5,680,238	10/21/97	Masuda	359-398	432-76	11/9/95

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
DSK	K	EP 0 717 521 A	06/19/96	EP				No
DSK	L	EP 0 756 393 A1	29-01-97 1/29	EP				No
								RECEIVED
								APR 17 2001
								Technology Center 2600

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

M	Business Wire, "Harmonic Lightwaves Announces Availability of First MCNS Compliant QAM Modulator; TRANsend-QAM is a Vital Component for Delivering Digital Services", November 18, 1997
N	Cvijetic, M., "Coherent and Nonlinear Lightwave Communications," Artech House, Boston, MA 1996
DSK O	Dai, H., C. Lin, M. Ramachandran, "Hybrid AM/QAM Video Trunking Lightwave Systems With Cascaded EDFA's", Conf. Proc. LEOS, 97 Annual Meeting, IEEE Lasers & Electro Optic Society, 1997, Vol. 1, pp. 319-320
P	Douverne, E., M. Ottka, K. Ruthemann, K. Siegel, "Ein 64-QAM-Modem für SDH-Richtfunkgeräte mit integriertem Kreuzpolarisationsentkoppler", Vol. 40, No. 11, 1 March 1994, pages 89-100

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.
Include copy of this form with next communication to applicant.

05 MARCH 2004



FORM PTO-1449 (REV. 6-89) INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)			U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office		Attorney's Docket No. 5169 US	Serial No. 09/728,373
			Applicant Ting K. Yee and Peter Chang			
			Filing Date November 28, 2000		Group Art Unit 2733	

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	RECEIVED	Class	Subclass	Translation
					APR 17 2001			Yes No
					Technology Center 2600			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Q	Fuse, M., Y. Kudo, K. Maeda, "Development of 128 Optical Distribution System of 150-chs-AM/QAM-Hybrid-Signals", <u>Electronics and Communications in Japan</u> , November 1996, Volume 79, Issue 11, Part 1, pp. 65-77
	R	Green, P., "Fiber Optic Networks", 1993, Prentice Hall, Inc., Englewood Cliffs, New Jersey, p. 331, line 4-line 7-figure 9-1
DSK	S	Hiramatsu, A. et al., "Hypermedia Photonic Information Network Based on WDM-SCM Broadcast and Select Switching," Conference Proceedings, Leos '96 9 th Annual Meeting, IEEE Lasers and Electro-Optics Society 1996 Annual Meeting (Cat. No. 96CH35895), Boston, MA, November 18-19, 1996, pp. 312-313
DSK	T	Ho, K., H. Dai, C. Lin, "Hybrid WDM Digital Trunking System for both HFC and FTTC Access Networks", Digest IEEE/LEOS 1996 Summer Topical Meetings (Cat. No. 96 th 8164), NY, NY, pp. 37-38
DSK	U	Kanno, N., K. Ito, "Fiber Optic Subcarrier Multiplexing Transport for Broadband Subscriber Distribution Network", <u>IEEE Intl. Conference on Communications Boston ICC/89 World Prosperity Through Communications</u> , June 11-14, 1989, Boston, MA, Volume 2, pp. 996-1003
DSK	V	Kavehrad, M., E. Savov, "Fiber-Optic Transmission of Microwave 64-QAM Signals", <u>IEEE Journal on Selected Areas in Communications</u> , Vol. 8, No. 7, September 1990, pp. 1320-1326
	W	LeBer, J., M. LeLigne, "Digital Transmission-on-Electric-Subcarriers-in-Optical-Fiber Videocommunication Systems", <u>Optics Communications</u> , October 15, 1987, Volume 64, No. 2, pp. 120-126
	X	Li, J., K. Yane, "Development of AM/QAM Hybrid Optical-SCM Transmission System", <u>Proc. Intl. Conf. On Communication Technology ICCT '96</u> , May 5-7, 1996, Beijing, China, Volume 1, pp. 575-577
DSK	Y	Lu, X., G.E. Bodeep, T.E. Darcie, "Broad-Band AM-VSB/64 QAM Cable TV System Over Hybrid Fiber/Coax Network," <u>IEEE Photonics Technology Letters</u> , Vol. 7, No. 4, April 1995, pp. 330-332
DSK	Z	Nakamura, Y., H. Ohtsuka, S. Aikawa, H. Takanashi, "Advanced Techniques for Super Multi-Carrier Digital Microwave Radio With Trellis-Coded 256 QAM Modulation", <u>NTT Radio Communication Systems Laboratories</u> , pp. 389-394
DSK	AA	Nishikido, J. et al., "Multiwavelength Securely-Authenticated Broadcast Network" 11 th International Conference on Integrated Optics and Optical Fibre Communications, 23 rd European Conference on Optical Communications IOOC-ECOC 97 (Conf. Publ. No. 448), Sept. 22, 1997, pp. 17-20

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.

05 MARCH 2004

O I P E
APR 10 2001
JC1
U.S. PATENT & TRADEMARK OFFICE

Sheet 3 of 3

FORM PTO-1449
(REV. 6-89)

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	Attorney's Docket No. 5169 US	Serial No. 09/728,373
Applicant Ting K. Yee and Peter Chang		
Filing Date November 28, 2000	Group Art Unit 2733	

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

DSK	BB	Ohtsuka, H., O. Kagami, S. Aikawa, H. Takanashi, "256-QAM Subcarrier Transmission for Broadband Distribution Networks", NTT Radio Communications Systems Laboratories, GlobeCom '91, pp. 1817-1822
DSK	CC	Park, J., A. Elrefaei, K. Lau, "1550-nm Transmission of Digitally Modulated 28-GHz Subcarriers Over 77 km of Nondispersion Shifted Fiber", <u>IEEE Photonics Technology Letters</u> , February 1997, Volume 9, Issue 2, pp. 256-258
	DD	Ryu, S., "Coherent Lightwave-Communication-Systems," Artech-House, Boston, MA 1995
DSK	EE	Ryan, J., "WDM: North American Deployment Trends," <u>IEEE Communications Magazine</u> , February 1998, pp. 40-44.
DSK	FF	Schlump, Dieter et al.: "Electronic equalization of PMD and chromatic dispersion induced distortion after 100 km standard fibre at 10 Gbit/s" <u>PROCEEDINGS OF THE EUROPEAN CONFERENCE ON OPTICAL COMMUNICATION</u> , 20 September 1998, pp. 535-536.
	GG	Swaminathan, V., N. Froberg, L. Upadhyayula, "The end-to-end-bit-error-performance-of-64-quadrature-amplitude-modulated-signals-in-a-hybrid-AM-vestigial-sideband/QAM-fiber-optic-video-transmission-system", <u>Proceedings of SPIE International Society for Optical Engineering</u> , Volume 2917, pp. 274-282
DSK	HH	Tai, C., Pi-Yang Chiang, W. Way, "Eight-Way, 70-km Transmission of 33-Channel 64-QAM Signals Utilizing a 1.3-μm External Modulation System and Semiconductor Optical Amplifier", <u>IEEE Photonics Technology Letters</u> , Vol. 8, No. 9, September 1996, pp. 1244-1248
DSK	II	Tang, D., "Multi-Gigabit Fiber-Optic Video Distribution Network Using BPSK Microwave Subcarriers", <u>IEEE 1989 MTT-S Intl. Microwave Symp Digest</u> , June 13-15, 1989, Long Beach, CA, Volume 2, pp. 697-701
DSK	JJ	Wilson, G, "Capacity of QAM SCM systems utilising optically linearised Mach-Zehnder modulator as transmitter", <u>Electronic Letters</u> , Vol. 34, No. 25, December 10, 1998, pp. 2372-2374
		RECEIVED
		APR 17 2001
		Technology Center 2600

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.

PTO-1449
REV: 02/01



05 MARCH 2004



Sheet 1 of 3

FORM PTO-1449 (REV. 6-89)	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	Attorney's Docket No. 5169 US	Serial No. 09/728,373
INFORMATION DISCLOSURE CITATION		Applicant Ting K. Yee and Peter Chang	
(Use several sheets if necessary)		Filing Date November 28, 2000	Group Art Unit 2633

U.S. PATENT DOCUMENTS

RECEIVED

JUL 17 2001
Technology Center 2800

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

DSR	SARGIS, Paul D., et al., "10-Gb/s Subcarrier Multiplexed Transmission Over 490 km of Ordinary Single-Mode Fiber Without Dispersion Compensation," IEEE Photonics Technology Letters, Vol. 9, No. 12, December 1997, pages 1658-1660.
	 05 MARCH 2004

05 MARCH 2004

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.
Include copy of this form with next communication to applicant.



RECEIVED

Sheet 1 of 1

FORM PTO-1449 (REV. 6-89)		U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office		AUG 30 2001	Serial No.
INFORMATION DISCLOSURE CITATION					
(Use several sheets if necessary)					
				Attorney's Docket No. 5169 US	09/728,373
				Technology Center 2600	
		Applicant		Ting K. Yee and Peter Chang	
		Filing Date		Group Art Unit	
		November 28, 2000		2633	

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>DSK</i>	C	Corvaja, Roberto, et al., "Bit Error Rate Evaluation of Dual-Filter Heterodyne FSK Optical System," Journal of Optical Communications, December 1, 1994, Vol. 15, No. 6, Berlin, DE, Pages 208-213
<i>DSK</i>	D	Fong, Thomas K., et al., "Linewidth-Insensitive Coherent AM Analog Optical Links Using Semiconductor Lasers," IEEE Photonics Technology Letter, April 1, 1993, Vol. 5, No. 4, New York, Pages 469-471
		<i>[Signature]</i> OS MARCH 2004



DATE CONSIDERED

05 MARCH 2004

EXAMINER

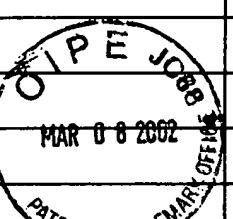
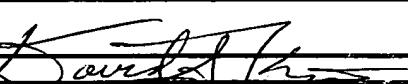
Include page of this form with next communication to applicant.

Include copy of this form with next communication to applicant.

P10-1449

REV: 02/01

20852/05169/DOCS/1198684.1

FORM PTO-1449 (REV. 6-89)			U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office		Attorney's Docket No. 5169 US		Serial No. 09/728,373	
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)			Applicant Ting K. Yee and Peter Chang					
			Filing Date November 28, 2000		Group Art Unit 2633			
U.S. PATENT DOCUMENTS								
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
DSK		5,930,231	07/27/99	Miller et al.	370	210		
								
RECEIVED MAR 18 2002 Technology Center 2600								
FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)								
EXAMINER 		DATE CONSIDERED 05 MARCH 2004						
EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.								
Include copy of this form with next communication to applicant.								

EXAMINER

David J. ...

DATE CONSIDERED

05 MARCH 2004

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered.
Include copy of this form with next communication to applicant.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Sheet

1

of

1

Complete if Known	
Application No.	09/728,373
Filing Date	November 28, 2000
First Named Inventor	Ting K. Yee
Art Unit	2633
Examiner Name	Jason Chan
Attorney Docket Number	20852-05169

RECEIVED

MAY 16 2003

Technology Center 2600

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document No.	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
DSK	1	US-3,752,992 A	08-14-1973	Fluhr
DSK	2	US-5,724,169 A	03-03-1998	LaGasse
DSK	3	US-6,134,033 A	10-17-2000	Bergano et al.

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
DSK	4	GB2179517 A	03-04-1987	STC PLC	
DSK	5	EP0328156 A1	08-16-1989	British Telecommunications	
DSK	6	EP0507508 A2	10-07-1992	American Telephone & Telegraph Company	

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS

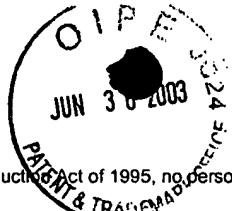
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁶
DSK	7	Campos, L.A. et al., "16-Gbit/s time- and polarization-division-multiplexed system using a novel compensation technique," <i>Optical Fiber Communication Conference Technical Digest Series</i> (Washington, DC 1994), Vol. 4, pages 14-15.	
DSK	8	Hill, P.M. et al., "Optical Polarization Division Multiplexing at 4 Gb/s," <i>IEEE Photonics Technology Letters</i> (May 1992), Vol. 4, No. 5, pages 500-502..	
DSK	9	Kawanishi, S. et al., "100 Gbit/s all-optical demultiplexing using four-wave mixing in a travelling wave laser diode amplifier," <i>Electronics Letters</i> (June 9, 1994), Vol. 30, No. 12, pages 981-982.	

Examiner Signature		Date Considered	05 MARCH 2004
--------------------	--	-----------------	---------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.



Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 1 of 1 Attorney Docket Number 20852-05169

Complete if Known

Application No.	09/728,373
Filing Date	November 28, 2000
First Named Inventor	Ting K. Yee
Art Unit	2633
Examiner Name	Jason Chan

U.S. PATENT DOCUMENTS

		Document No.		
Examiner Initials*	Cite No. ¹	Number – Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
DSK	1	US-5,162,937 A	11-10-1992	Heidemann et al.

FOREIGN PATENT DOCUMENTS

		Foreign Patent Document			
Examiner Initials*	Cite No. ¹	Country Code ³ – Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
DSK	2	EP0496298 A	07-29-1992	GTE Laboratories Inc.	

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁶
DSK	3	Invitation to Pay Additional Fees, Annex to Form PCT/ISA/206 Communication Relating to the Results of the Partial International Search, International Application No. PCT/US02/04582, June 16, 2003, 6 pages.	

RECEIVED

JUL 02 2003

Technology Center 2600

Examiner Signature		Date Considered	05 MARCH 2004
--------------------	---	-----------------	---------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.